The antipassive and its relationship to person markers

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Abstract

This paper presents a cross-linguistic study of morphological overlaps between antipassive and person markers and their historical relationships, addressing the question of how frequent developments from antipassive to person marker or vice versa are and whether there are recurrent patterns of change. The results show that historical connections between antipassive and person markers are not confined to a specific macro-area or language family. The development from antipassive to first person plural patient marker is the most frequent

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pathway in the languages investigated. However, this diachronic pathway does not account for all cases, i.e. other pathways are also possible. While many uncertainties concerning the detailed history of such diachronic connections remain, this study shows that there are tendencies that contribute to the understanding of the history and subsequent development of antipassives.
Keywords: antipassive, person marking, language change, diachronic typology

1 Introduction

There has been a recent rise of interest in antipassives including diachronic aspects, but compared to passives relatively little is known about the sources and further developments of antipassives. This paper considers the diachrony of antipassive markers with respect to person markers. It presents a cross-linguistic comparison of morphological overlap of antipassives and person markers and their historical connections – both with person markers as the source of antipassives and with antipassives as the source of person markers.

That there is a connection between person and voice in a broader sense is not a new idea, of course: grammatical voice is an operation that affects arguments of predicates, and these arguments are often expressed by person markers. In addition to this synchronic relation, there is also a well known diachronic process in which third person markers take on an impersonal meaning and then are reanalyzed as passive markers (cf. Siewierska 2010). Historical processes that concern antipassive markers, however, are not usually linked to person markers in the same way. But passives and antipassives can develop out of the same elements (see Section 2) and both

fall into the category of detransitivizing operations, which suggests that this relation warrants a closer look.

Reports about antipassives with a diachronic relation to person markers show close parallelisms, even though the languages involved are from entirely different continents and language families. Fleck (2006) suggests two ways of interpreting the demoted patient of an antipassive in Matses (Panoan; Peru): it refers either to an indefinite human (e.g. 'people in general') or to a first person patient. In the Southern Kirant languages (Tibeto-Burman; Nepal), Bickel & Gaenszle (2015) find that the antipassive has developed a first person plural patient interpretation in some languages, while it coexists with the antipassive reading in others. This suggests a historical connection between antipassive markers and first person patients, in which the voice marker develops into a person marker via notions of genericity and politeness. This leads to the question whether this pathway could be taken by antipassive markers in other languages, whether or not it can proceed in the reverse direction, and how wide-spread this phenomenon is.

The results of this study show that antipassive markers are often diachronically related to first person markers, and this connection is not limited to a specific macro-area or language family. The relationship between first persons and antipassives, however, is not an exclusive one. Other person forms, such as third person markers, can take on an antipassive function as well. Even though explanations based on processes of language change have recently gained traction in typology, they often focus on the sources of the construction or marker in question. A holistic understanding of diachrony, however, ideally includes sources and further developments, as both directions can reveal recurrent patterns. In this case, antipassives and

person markers are shown to be connected both ways; each can be the source of the other, although the steps and intermediate stages differ. Even though the lack of descriptions and reconstructions for many languages and language families often makes it difficult to unravel the precise history of a change from one category to the other, much insight can be gained from cross-linguistic diachronic comparisons.

In Section 2, I present a brief overview of previous research on the diachrony of antipassives and how these findings relate to the current question. The data collection and analysis are outlined in Section 3. The results are discussed by macro-area in Section 4 and common pathways are summarized and set into a broader context in Section 5. Finally, Section 6 provides concluding remarks and suggestions for further research in this area.

2 On the diachrony of antipassives

As mentioned above, the diachrony of antipassives is largely uncharted territory, mostly due to lack of historical documentation. However, some common themes have been identified and I will briefly summarize them. Note that most of these pathways concern the source of antipassive constructions in general, and not necessarily of antipassive markers. Concerning the further development of antipassives, it has been noted that they can act as an intermediary in alignment changes from an accusative to an ergative system (cf. Schulze 2010, Aldridge 2012). One of the first studies approaching the diachrony of antipassives from a typological point of view is Sansò (2017c), who identifies the following as main sources of antipassive constructions: a) agent nominalizations, b) action/result nominalizations, c) reflexives and/or reciprocals, and d) generic nouns. For all of these, there is no detailed ac-

count of exactly how languages get from one to the other, but there are often functional overlaps that serve as the basis for the connection. Below, I will discuss each of the sources briefly.

a) Agent nominalizations: In this scenario, a marker (usually an affix) that forms agent nominalizations such as *sing-er* is reinterpreted as an antipassive. This probably happens by "conventionalization of pragmatic implicature" (Sansò 2017c), such as: *he is a singer > he habitually sings (songs) > he sings (songs).* Often, such antipassives retain features of the source construction, having a habitual meaning as well and oblique marking of the patient. An example of this development can be found in Yecuatla Totonac, where the antipassive suffix *-nán* (in 1a) can be traced back to the agent nominalizer *-nV*^{ʔ} (illustrated in 1b).

(1) Yecuatla Totonac (Totonacan; Mexico) (MacKay 1999:321-322)

a. *ʔút šqáa-nán*
3SG harvest-ANTIP
's/he harvests (something) / does the harvesting'

b. *hɔ́ɴ-qa̱wa̱-ná̱ʔ*
DET-talk-NMLZ
'speaker'

b) Action/result nominalization: Such nominalizations can be accompanied by a light verb 'do' and are recruited as antipassives because they offer the possibility of omitting the patient. The source constructions are quite varied, which means that the outcomes do not always look alike – although it has been observed that there are often habitual overtones. In Japhug Rgyalrong, for example, there are prefixes that derive verbs from nouns. They can combine with bare action nominals derived from transitive verbs, which results in an intransitive verb. Two of these prefixes have acquired an an-

tipassive function, with one being used for human patients and the other for non-human patients (Jacques 2014). (2) illustrates the use of *rɤ-* as antipassive for non-human patients. The same prefix also derives action/result nouns from verbs, such as *rɤ-zga* [VBLZ-sauce] 'to make honey'.

(2) Japhug Rgyalrong (Sino-Tibetan; China) (Jacques 2014:17)

tɤ-rʑaβ nɯɪ pjɤ-rɤ-ɕpʰɤt
INDF.POSS-wife TOP EVD-ANTIP.NHUM-mend
'The wife mended (clothes).'

c) Reflexives and/or reciprocals: The best known sources of antipassives are reflexives, middles, and/or reciprocals, as e.g. in Australian languages (Terrill 1997) and many accusative languages (Janic 2016). Usually, the reflexive and/or reciprocal meaning exists alongside the antipassive function, as in (3).

(3) Polish (Indo-European; Poland) (Janic 2013:245)

Nie chlap się!
NEG splash.2SG.IMP REFL
'Stop splashing yourself.' *or* 'Stop splashing.'

The link between these categories and the antipassive is seen in the low degree of elaboration (cf. Kemmer 1993): in both cases, there is low distinguishability of participants and/or low degree of agentivity. The pathway from reflexives/reciprocals to antipassive seems less clear. Janic (2016) proposes that reflexives can develop into antipassives via functional extension (see also Janic 2015) in those languages in which the notion of reflexivity and reciprocity are coded by two different markers. Sansò (2017c), however, argues that reflexives only develop into antipassives via an intermediate reciprocal stage. The crucial link is pluractionality, but not as a source. Rather,

pluractionals serve as bridging constructions in the development of reciprocals and reflexives to antipassives.

d) Generic nouns: The last source is generic nouns in object position that are recruited to mark antipassives, possibly via incorporation. This is the case in Koasati, where the noun *a:ti* 'person' has developed into an indefinite human object prefix, cf. (4). Such antipassives are often limited to specific kinds of patients (e.g. humans). The limitation to certain kinds of patients is diachronically related to the source noun of the antipassive.

(4) Koasati (Muskogean; USA) (Kimball 1985:137)

hiná:p at-ci-mal-átl-ok *ká:ha-toho-:li-mpa-k*
now! ANTIP-2SG-be.afraid[SG]-SS.FOC say-REAL-DEDUC-hearsay-PST
'Now, you are afraid of people, he said, so it is reported.'

None of the sources described above explicitly mention person markers, but the last two options, viz. reflexive/reciprocals and generic nouns, are connected to this pathway as will be shown in the following sections. As mentioned in Section 1, the relationship of voice markers to person markers also receives support from the more common passive. Note that some of the sources mentioned above have also been identified as sources of passive constructions. Reflexive nouns and pronouns that develop into passives via an intermediate anticausative stage are among the most widely cited sources of passive markers (Haspelmath 1990:44). Givón (2006:339) has suggested that nominalizations can also acquire a passive function, but a broader study by Sansò (2017a) indicates that this might only pertain to a few cases and is not a general pathway of change. The best known connection between person and voice is that between impersonal and passive constructions (Haspelmath 1990). Impersonal constructions typically involve a non-referential pronominal subject, most often a third person plural (Siewierska 2010:74). This is

illustrated in (5), in which a third person plural is used as an impersonal.

(5) Modern Greek (Indo-European; Greece) (Haspelmath 1990:49)

Su tilefoni-s-an.
2SG.DAT phone-AOR-3PL
'Someone called you.'

Like passives, impersonals are associated with the defocusing of the agent and non-canonical subjects. Over time, the impersonal subject marker may lose its participant status and develop a passive meaning. According to Siewierska (2010:103), this only happens if there is a specific third person plural impersonal construction. When such a construction is used with a patient-centered verb, a passive interpretation follows quite naturally, cf. (6).

(6) Ewe (Atlantic-Congo; Ghana) (Siewierska 2010:103)

Wo-dzi Kofi.
3PL-bear Kofi
'They bore Kofi/Kofi was born.'

Such developments are also attested with first person plural markers: in Ainu the first person inclusive affixes (*-an* and *a-*) have been extended to mark impersonals and passives (Haspelmath 1990:50).

Given that one of the antipassive's main functions is the defocusing of the patient (and not the agent), impersonals are an unlikely source. Patients, however, can be unspecified, too. Some languages have specific markers for this (cf. 7), while others such as English use generic nouns like 'people', e.g. *my dog never bites people.*

(7) Eyak (Athapaskan; USA) (Thompson 1996:363)

k'u-x-kus
INDF.OBJ-1SG-wash
'I'm washing something'

Unlike impersonals, unspecified objects have not been studied in a systematic way. This might have to do with the fact that in many European languages, objects – unlike subjects – can be left out without further changes, because many verbs are ambitransitive. In languages where ambitransitives are not so ubiquitous, it can be expected that third person unspecified object markers are associated with antipassives in a similar way, such that morphemes like Eyak *k'u-* acquire an antipassive function over time.

Based on the discussion presented above, the expected connections of antipassives and person markers can be summarized as follows: a) third person patient markers can develop into antipassives via an intermediate stage in which they function as unspecified object markers, and b) antipassives can develop into first person patient markers.

3 Collection and analysis of the data

The definition of antipassive employed here closely follows that of this volume, with one addition: the verb must carry segmental morphological marking that is absent in a corresponding active clause, i.e. the antipassive has to be marked morphologically. This is a purely practical addition and not meant to imply that antipassives always have to have morphological marking. But as this study aims at comparing antipassive markers and person markers, it is a necessary restriction in the present case.

Otherwise, the definition is deliberately kept broad to cast a wide net and thus excludes other criteria, such as semantic and pragmatic restrictions of antipassives, the function of the antipassive, and the marking of the arguments. These properties are difficult to identify and delineate, and it is often impossible to say anything about them confidently based on available de-

scriptions. In some languages, for example, it might not be obvious how to determine what the function of a given antipassive is. In others, there might be a semantic restriction, but it is not mentioned in the reference grammar. Note that polyfunctional markers were also included: a marker that is used both as a passive and antipassive will be referred to as a detransitivizer. To keep glossing throughout the paper consistent, all the markers that fit the criteria outlined above will be labeled as antipassives or detransitivizers. The original gloss given by the author will be indicated in a footnote, if it deviates from this.

This study is based on a genealogically and geographically diverse convenience sample including 45 languages with one or more antipassive marker(s). This might seem like a small number at first, but it is comparable in size to the corresponding chapter in WALS, which covers 48 languages (Polinsky 2013). Sansò (2017c) has twice as many, but he also includes constructions without morphological markers. The languages in the sample cover all macro-areas (as defined by Hammarström & Donohue 2014) with approximately seven languages per macro-area.[1] When possible, I selected languages from different families in each macro-area, but tried to include two languages per family for better internal comparison. The sample is inevitably constrained by the availability of descriptions. A further complication involves terminology: while the term 'antipassive' has recently been applied more consistently to comparable phenomena, earlier studies use a multitude of labels which often renders it difficult to determine whether or not a language has an antipassive in the sense used here. This difficulty is even more pronounced when the

[1] Hammarström & Donohue (2014) propose a six-way division into Africa, Eurasia, the Pacific, Australia, North America (including Mesoamerica), and South America.

source does not offer examples of full clauses. I have tried to work with these limitations and be as clear as possible on why I decide to include or exclude a given construction in a language. In total, there are 56 antipassive markers that will be analyzed in the subsequent chapters. Africa contributes the highest number of markers and Australia the least, cf. Table 1. That Africa is somewhat overrepresented could be due to the recent surge in studies on antipassives in this macro-area (cf. Creissels 2012, Dom et al. 2015, Bostoen et al. 2015, among others). In Australia, all the languages included are from Pama-Nyungan because non-Pama-Nyungan languages apparently do not have antipassives – and there are fewer descriptions as well. The full sample of languages can be found in Table 18 in the Appendix.

Area	Languages	Families	Antipassive markers
Africa	10	7	17
North America	9	5	11
Eurasia	7	3	10
Pacific	7	3	7
South America	7	5	6
Australia	5	1	5
Total	45	24	56

Table 1: Number of languages and antipassive markers per macro-area

I collected antipassive and person markers (including personal pronouns and verbal person indexes) for each language and then compared the forms as to whether there is a formal overlap between the two or not. An example of an overlap is provided in (8a) and (8b): the personal pronoun (boldface) in 8a is formally identical to the antipassive prefix (boldface) in 8b.

(8) Saliba (Austronesian, Oceanic; PNG) (Mosel 1994:6, Margetts 1999:182)

a. ***kai****-wa* *ka-matausi* *palapa.*
1PL.EXCL-DET 1PL.EXCL-be.frightened really
'We were really frightened.'

b. *ya-lao* *ya-**kai**-deuli.*
1SG.NOM-go 1SG.NOM-ANTIP-wash
'I go and wash the laundry / the dishes'

I then analyzed each of the overlaps to determine whether there is a possible historical connection. This evaluation is based on two main sources: materials on the reconstruction of the markers in question or the language family more generally and the comparison with closely related languages. The data is deposited on Zenodo (doi:10.5281/zenodo.1323375) in the form of spreadsheets.

Of the 56 antipassive markers 25 formally overlap with a person marker – and it seems surprising that almost half of the markers exhibit such an overlap. There is, however, a simple explanation for this: person markers and voice markers are commonly monosyllabic or at most disyllabic, which translates into a high likelihood of overlapping forms in general. Indeed, many antipassives in this sample are monosyllabic and consists of only a vowel and a consonant or either one of those, which makes overlaps with any other affix inherently likely. Therefore, formal overlap between antipassive and person markers should not necessarily lead to the conclusion that there is a historical connection between these categories. It can also be accidental. Based on the evaluation described above, eleven of the 25 overlaps have a probable historical relation, cf. Table 2.

When analyzing overlapping markers, there are four possibilities concerning historical connections: the markers can be unrelated, they can be derived from a common source, the antipassive marker can be the source of the person marker, or the person marker can be the source of the antipassive marker. Due to the limitations laid out above, it is often impossible to say with certainty in which category an overlap belongs. In many cases, how-

Area	Antipassive markers	Overlaps	Poss. connections
Africa	17	5	3
North America	11	4	2
Eurasia	10	3	3
Pacific	7	7	2
South America	6	3	1
Australia	5	3	0
Total	56	25	11 (20%)

Table 2: Number of overlaps and possible historical connections per macro-area

ever, it is possible to exclude some of the options as rather unlikely. To better capture such degrees of likelihood, I assigned each overlap one of the following values: likely, probable, possible, unlikely. The last assessment means that it is unlikely that the two forms in question are historically connected in any way; this might be because there are conflicting sound laws, or the sources of one of the forms is known to be something else, or there is no credible diachronic scenario that could relate the two. In this case, the overlap can be characterized as homonymy, i.e. the two forms have identical sound forms but unrelated meanings. In some cases, there is no clear evidence for or against a historical connection along these lines; such connections are labeled as 'possible'. Many of these can be taken as starting points for further research, which makes them an important category. Other times, there is a plausible diachronic link between the two forms and no opposing sound laws or other sources, in which case a historical connection is 'probable'. Finally, a few cases of overlap have a documented history strongly suggesting that the forms are historically related to each other or the synchronic clues are so well lined up that I deem the connection 'likely'. Since we cannot be certain about anything that happened in language history, I avoid labeling any connection as certain.

4 Antipassives and person markers across macro-areas

Before summarizing the findings along the lines of common pathways (see Section 5), I will provide an overview of the assessment of each overlap grouped by macro-area. Antipassive markers that do not overlap with a person marker are not discussed in detail, but the data can be found in the supplemental online materials together with that of the markers presented below.

4.1 Africa

Of the 17 antipassive markers found in the sample of languages from Africa, only five show an overlap with a person marker – but in Mandinka and Krongo this is with two person markers each. Based on available reconstructions and comparisons with related languages, only one of the overlaps turns out to have a probable historical connection, namely the antipassive suffix *-tì* in Krongo. In addition, there are two possible connections in the Mande languages Mandinka and Soninke, cf. Table 3.

Language	Family	Voice marker		Person marker		Prob.
		Gloss	Form	Gloss	Form	
Soninke	Mande	DETR	*-i*	3PL	*i=*	possible
Mandinka	Mande	ANTIP, REFL	*í*	3PL	*i=*	possible
Mandinka	Mande	ANTIP, REFL	*í*	2SG	*í=*	unlikely
Krongo	Kadugli-Krongo	ANTIP	*-tì*	3.INAN.OBL	*-tí*	probable
Krongo	Kadugli-Krongo	ANTIP	*-tì*	1SG.NOM	*-tí*	unlikely
Krongo	Kadugli-Krongo	ANTIP	*-Àkú*	3SG.F	*àakù*	unlikely
Koyraboro Senni	Songhay	ANTIP	*-a*	3SG	*a*	unlikely

Table 3: Antipassive-person overlaps in Africa

Below, I will discuss each of the overlaps in turn. None of the possible or probable connections concern a first person but rather third person forms,

either plural or unmarked for number. Whether this is coincidence or part of a general tendency in this macro-area is difficult to say due to lack of descriptions and reconstructions for many languages and language families. This also means that not much is known about the processes and constructions involved in the formation of antipassives or their connection to other parts of the grammar in this macro-area at this time.

Some West Mande languages (Soninke, Bozo, and Bobo) have a detransitivizing suffix *-i* that can function as an antipassive, analyzed by Creissels (2012) as the reflex of a reflexive suffix **-i* possibly related to the reflexive pronoun *í*, which is reconstructable at proto-Mande level. As mentioned in Section 2, reflexives often serve as a basis for passive and antipassive markers. There is, however, a problem with this hypothesis: Mande languages are strictly SOV – and there is little to no evidence suggesting that it has changed from SVO – so a reflexive pronoun would be expected to grammaticalize into a prefix and not a suffix (Creissels 2012), cf. (9a) which illustrates the reflexive appearing before the verb. For now, this mismatch has to remain unaccounted for. In Mandinka, the reflexive pronoun has acquired an antipassive function with a very limited number of verbs. In such cases, the marker appears before the verb and demotes the patient to an oblique, cf. (9b) and (9c).

(9) Mandinka (Mande; Senegal) (Creissels & Sambou 2013:221, 335)

a. *A ye í muu túl-óo la.*
3SG PFV REFL smear oil-DET OBL
'She rubbed herself with oil.'

b. *Kew-ó ye jíy-o miŋ.*
man-DET PFV water-DET drink
'The man drank water '

c. *Kew-ó ye í miŋ (jíy-o la).*
man-DET PFV ANTIP[2] drink water-DET OBL
'The man drank (of the water).'

The detransitivizing suffix *-i* in Soninke combines with the verb and fuses with the final vowel, cf. the active clause in (10a) and the antipassive clause in (10b). Depending on the verb, this suffix can have a passive, anticausative, reflexive or antipassive meaning.

(10) Soninke (Mande; Senegal) (Creissels 2012)

a. *Yàxàrê-n dà máarò-n còró.*
woman-DEF TR rice-DEF cook
'The woman cooked the rice.'

b. *Yàxàrê-n còré.*
woman-DEF cook.DETR
'The woman did the cooking.'

Soninke also has a dedicated and productive antipassive suffix *-ndí*, which goes back to a periphrastic construction with the verb 'do' and has a cognate in Mandinka (Creissels 2012). A connection with the second person singular pronoun *í=* in Mandinka seems rather unlikely. Although there is no reconstruction of proto-Mande pronouns, there are indications that this form is old: in the closely related language Bambara, the second person singular is *í* (Maiga 2001:38) and the reconstructed form for proto-South-West Mande, a group of related languages, is **í/é* (Babaev 2010:44). The situation is less clear for the third person plural. Related languages show different forms that might or might not be related to those in Mandinka and Soninke. It is possible that the two forms are connected via the generic use of the third person plural. In absence of conclusive evidence either way, 'possible' seems the most appropriate assignment.

[2] Glossed as reflexive in the grammar.

Krongo has a multitude of antipassive suffixes (there are no fewer than seven), some of which are restricted to certain tense-aspect domains and others are derived from each other (Reh 1985:214). Two of the suffixes overlap with a person marker, although the tones do not line up in either case. The suffix *-Àkú* is often used with transitive verbs that have oblique marked objects. There is not much work on the reconstruction of this language family, but a comparative wordlist suggests that the third person singular feminine pronoun *àakù* is old (Schadeberg 1994). This renders a historical connection rather unlikely – especially considering that the vowel length and tone patterns do not match. More interesting is the antipassive *-tì* which according to Reh (1985:219) is derived from the inanimate oblique pronoun *tì*. Inanimates can only be anaphorically referred to by this pronoun, which covers all functions except those of subject and direct object. Inanimates cannot be taken up anaphorically as subjects, and as direct objects they are referred to by zero anaphora. In all other functions, *-tí* is used together with the appropriate case prefix (Reh 1985:164). The *-tì* antipassive is restricted to a few verbs, such as *ànúu-tì* 'to avoid' and *àdìlàa-tì* 'to mend'.[3] The semantic link between an inanimate indirect object and an antipassive, the source construction for a reanalysis of the pronoun to the antipassive is less clear, which is why I assigned this connection a probability slightly above chance level.

The overlap in Koyraboro Senni is best seen as a case of homonymy without any connection. The antipassive suffix *-a* also exists in the closely related Humburi Senni, where it has a tone dropping effect. This effect is not present with the third person singular pronoun, so a historical relationship

[3] No examples of full clauses are provided in the grammar.

is unlikely. Koyraboro Senni has lost its tone system, which is why this difference can no longer be observed. In addition, the third person singular pronoun *a* is (probably) historically related to nominal definiteness markers, which renders a connection to the antipassive even more implausible (Jeffrey Heath, p.c.).

While in Mandinka and Soninke the antipassive might go back to a reflexive, a well known source of antipassives, Krongo is interesting in that its antipassive probably comes from a generic person marker. In Section 2, I mentioned that generic nouns can develop into antipassives, which suggests that this indefinite object marker may have come from a generic noun originally. Even though the antipassives can in both cases be traced back to already known sources, there is not much material to support this, so that other sources remain a possibility. Based on the discussion in Section 2, third person markers are expected to develop into antipassives, and not vice versa. While this direction is compatible with what we know about Krongo, the reverse is more likely in both Mande languages. In addition, all three languages have neutral alignment in both nouns and pronouns and no verbal agreement, which shows that such connections are not restricted to ergative languages or affixal person markers.

4.2 Eurasia

In Eurasia, I analyzed ten voice markers and three of them overlap morphologically with a person marker, cf. Table 4. Even though the three overlaps come from only two languages, the person markers involved are similar and all of them have a high probability of historical connection. Moreover, they all concern first person patient markers and exhibit similar developments,

namely from antipassive to first person.

Language	Family	Voice marker		Person marker		Prob.
		Gloss	Form	Gloss	Form	
Chukchi	Chukotko-Kamchatkan	ANTIP	*ine-*	2/3SG>1SG	*ine-*	very likely
Chukchi	Chukotko-Kamchatkan	ANTIP	*-tku*	2>1PL	*-tku*	very likely
Puma	Sino-Tibetan	ANTIP	*kha-*	1PL.P	*kha-*	very likely

Table 4: Antipassive-person overlaps in Eurasia

Puma has two antipassives, one that is unmarked and one marked by the prefix *kha-*, which is restricted to human patients that are obligatorily omitted. Clauses marked with *kha-* are ambiguous between a first person patient and an antipassive interpretation, unless there is another overt noun phrase in the clause, cf. (11a) and (11b).

(11) Puma (Sino-Tibetan; Nepal) (Bickel & Gaenszle 2015:69)

a. *(kho-ci) som-kha-mʌ-tuk.*
3-NSG[.NOM] love-ANTIP-3PL.S-love.NPST[4]
'They love people.'

b. *(kho-ci-a) som-kha-mʌ-tuk.*
3-NSG-ERG love-1NSG.INCL-3PL.S-love.NPST
'They love us.'

Like many other Kiranti languages of the region, Puma has been in close contact with Maithili, an Indo-Aryan language. In Maithili, reference to first persons is avoided for politeness reasons, especially in high prestige varieties. There is evidence that Southern Kirant languages were in contact with exactly these high-prestige varieties and the exposure to the Maithili avoidance strategy can be seen as a trigger for the development from antipassive to first person (Bickel & Gaenszle 2015:80-81). Indeed, the prefix *kha-* de-

[4] The verb root is discontinuous, which is why it appears in the glosses twice.

rives from proto-Kiranti **khəl* meaning 'all'.[5] Given that 'all' has a relatively generic reference, one can assume that it was frequently used as a patient in zero-marked antipassive constructions. Remnants of an earlier object status can still be found in the grammar: relativization of the patient is possible with zero-antipassives, but not with *kha*-antipassives (Bickel & Gaenszle 2015:71). As a result, the prefix *kha-* has replaced all person markers involving a first person non-singular inclusive, and exclusive when combined with a second person agent, cf. Table 5.

	1SG	1NSG.INCL	1DU.EXCL 1PL.EXCL
2SG	*tʌ-Σ-ŋa*	reflexive	***kha**-tʌ-Σ*
2DU	*tʌ-Σ-ŋa-cʌŋ*		***kha**-tʌ-Σ-ci*
2PL	*tʌ-Σ-ŋa-nʌŋ*		***kha**-tʌ-Σ-i*
3SG	*pʌ-Σ-ŋa*	***kha**-Σ*	*ni-pʌ-Σ-ci-ka* *ni-pʌ-Σ-i-ka*
3DU	*pʌ-Σ-ŋa-cʌŋ*	***kha**-pʌ-Σ-ci*	
3PL	*ni-pʌ-Σ-ŋa*	***kha**-mʌ-Σ*	*ni-pʌ-Σ-i-ka*

Table 5: Verbal agreement (non-past) with first person patients in Puma (Sharma 2014:175)[7]

That the *kha*-forms were not originally used as person markers can also be seen in comparing the same person configurations in Bantawa, a closely related language, see Table 6.

	1SG	1DU.INCL 1PL.INCL	1DU.EXCL 1PL.EXCL
2SG	*tɨ-Σ-ŋa*	reflexive	*tɨ-Σ-ni(in)*
2DU	*tɨ-Σ-ŋaŋcɨŋ*		
2PL	*tɨ-Σ-ŋaŋnɨŋ*		
3SG	*ɨ-Σ-ŋa*	*nɨ-Σ-ci* *mɨ-Σ*	*(n)ɨ-Σ-aciʔa* *(n)ɨ-Σ-inka*
3DU	*ɨ-Σ-ŋaŋcɨŋ*		*nɨ-Σ-aciʔa* *nɨ-Σ-inka*
3PL	*nɨ-Σ-ŋa*		

Table 6: Verbal agreement (non-past) with first person patients in Bantawa (Doornenbal 2009:148)

[5] In present-day Puma, this lexeme has been replaced by the Indo-Aryan loan *jhara* 'all', which means that the diachronic link is not evident anymore (Bickel & Gaenszle 2015:70).

Similar developments are attested in many neighboring Kiranti languages, more precisely, in the sociolinguistic area of the Southern Kirant. In several languages, the starting point is a lexeme meaning 'people', for example in Belhare where the intermediate stage between antipassive and first person interpretation is attested. There is language internal evidence that *maʔiniyu* in (12b) constitutes a single word: no element can appear between *maʔi* and *niyu* while this is possible in (12a) (Bickel & Gaenszle 2015:64).

(12) Belhare (Sino-Tibetan; Nepal) (Bickel & Gaenszle 2015:68)

a. *un* *maʔi* *ni-yu.*
3SG.NOM person[SG.NOM] [3SG.S]see-NPST
'S/he sees people.'

b. *un-na* *maʔi-ni-yu.*
3SG-ERG 1EXCL.P-see-NPST
'S/he sees us (excl.).'

In Yakkha, detransitivizing is not marked by an affix, rather a transitive verb is just inflected intransitively. Both passives and antipassive constructions can have a first person plural interpretation for the demoted argument.[8] With antipassives, the development has gone so far that the intransitive forms have completely replaced the first person plural patient forms. The languages in question belong to different subgroups, so the developments are parallel innovations rather than shared inheritance. They form a contiguous geographical area, though, and the developments can be attributed to contact with Maithili and the political history of the region (Bickel & Gaenszle

[7] Σ represents the verb stem.

[8] A reviewer points out that there are many ways by which a paradigm can end up with zero-marked slots and asks whether alternative explanations can be ruled out. Given the prevalence of antipassive forms taking on first person meanings in neighboring related languages, it seems unlikely that the zero-marking of passives and antipassives coincides with that of first person plural forms merely by accident.

2015:79ff.).

Chukchi has two antipassives, both of which also have other functions. The prefix *ine-*, also used as an applicative, demotes the patient to an oblique and the agent is marked as single argument, compare the active and antipassive clauses in (13a) and (13b). Note that both antipassives are frequently used in non-finite forms, but not as much in finite forms (Dunn 1999:217).

(13) Chukchi (Chukotko-Kamchatkan; Russia) (Kurebito 2012:183, Nedjalkov 2007:1680)

a. *tumɣ-e rəlwen-nin nelɣ-ən*
friend-ERG burn-3SG>3SG.PST skin-ABS
'The friend burned the skin.'

b. *tumɣətum ine-nlwen-ɣʔi nelɣ-e*
friend.ABS ANTIP-attack-3SG.PST skin-INS
'The friend burned a skin.'

This prefix has a cognate *in-* in Itelmen, a related language, that also functions as an antipassive and is reconstructed to proto-Chukotko-Kamchatkan in the same function as **inæ-* (Fortescue 2003:60). The suffix *-tku* has cognates in other Chukotko-Kamchatkan languages, such as the iterative *-tku* in Koryak. Historically, the morpheme can be reconstructed as an iterative marker for proto-Chukotko-Kamchatkan (Caminsky 2017). Antipassives are often used for habitual actions, so the development from an iterative marker is well supported. In addition, the suffix still has that function in Chukchi with intransitive verbs. In its antipassive use, it has the same effects as *ine-*, cf. (14).

(14) Chukchi (Chukotko-Kamchatkan; Russia) (Nedjalkov 2007:1680)

eqelʔ-ən ətləɣ-etə penrə-tko-ɣʔe
enemy-ABS father-DAT attack-ANTIP-3SG.AOR
'The enemy attacked (at) the father'

Both of these affixes are employed as inverse markers in the verbal agreement system of Chukchi, cf. Table 7. The prefix *ine-* marks configurations with a first person singular patient and a second or third singular agent, while *-tku* is restricted to first person plural patients and second person agents.

	1SG 1PL	2	3
1	(reflexive)	direct	direct
2SG 2PL	*ine-* *-tku*	(reflexive)	direct
3SG 3PL	*ine-* *ne-* *-ne*	*-ne*	direct *-ne*

Table 7: Inverse marking in Chukchi (Dunn 1999:177)

There are hints that *-tku* only recently developed into an inverse marker: in the southernmost regions where Chukchi is spoken, *ne-* is used in its place, and the same distribution is found in the related language Koryak. Its introduction to the paradigm can be seen as an effort to distinguish number in SAP > SAP configurations (Dunn 1999:183-184). This means that in both cases, the person marking function developed out of the antipassive, just like in the Kiranti languages mentioned above. Moreover, they also concern first person patient arguments (although they also include information about the agent).

While overall few languages in Eurasia show an antipassive-person overlap, the pathways involved seem to be very parallel. Both Kiranti and Chukotko-Kamtchatkan languages have highly complex verbal agreement systems with numerous forms that have undergone or are currently undergoing shifts and changes. This might contribute to the chances of an antipassive developing into a first person patient marker. Note that the sources of the antipassive markers are not the same in the two families: in Kiranti, it is a generic noun,

while in Chukotko-Kamtchatkan the origin is an iterative marker for the suffix (and unknown for the prefix). This indicates that the origin of an antipassive marker is not the determining factor for it to change into a person marker. Rather, once the marker has acquired an antipassive function, the constructions it appears in undergo similar developments no matter what their source is.

4.3 North America

North America has four overlaps (out of ten markers) in four different languages, but only two of them have a possible historical connection, cf. Table 8. They both involve third persons that are either accusative or unmarked for case. This situation is reminiscent of what was found in Africa.

Language	Family	Voice marker		Person marker		Prob.
		Gloss	Form	Gloss	Form	
Comanche	Uto-Aztecan	ANTIP.HUM	*ma-*	3SG.ACC	*ma-*	likely
Halkomelem	Salishan	DETR, REFL	*-(ə)m*	3PL	*ƛ̓á-l-əm*	possible
Kiowa	Kiowa-Tanoan	DETR	*-kyá/-gyá*	various 3.P	*-gyá*	unlikely
Tz'utujil	Mayan	ANTIP	*-oon/-uun/-(V)n*	1SG	*in-*	very unlikely

Table 8: Antipassive-person overlaps in North America

For all the languages listed in Table 8 except Kiowa, I also looked at related languages (cf. Table 18), but the overlaps are not recurrent within families. As seen before, alignment seems not to play a role, as the languages in Table 8 display a range of different systems: Both Kiowa and the Salish languages have neutral alignment in nouns and pronouns and mixed systems for verbal agreement, while the Mayan languages have neutral alignment in nouns and pronouns, but ergative verbal agreement. The Uto-Aztecan languages included here exhibit accusative alignment for nouns and pronouns and no verbal agreement.

Comanche possibly exhibits a pathway that starts with a familiar source, namely from a generic expression to person marker to antipassive. Unfortunately, available descriptions are brief and there are few examples of full clauses. There are two constructions to express an unspecified object, one with the prefix *ma-* and one with the prefix *ti-*. According to Charney (1993:128), the main difference between the two is that *ma-* is generally used with human objects and *ti-* with non-human objects. It is also mentioned that the latter is less definite than the former, but this statement is not elaborated any further. As far as the prefix *ti-* is concerned, its detransitivizing effect is uncontroversial (Charney 1993:129, McDaniels 2014:75). Furthermore, the closely related language Timbisha has an antipassive marker *tü-*, which is most probably etymologically the same as *ti-* in Comanche. The status of *ma-* is much less clear. In Timbisha, the form *ma* also exists, but only as third person pronoun and demonstrative base. It appears that in Comanche the prefix attaches to both transitive and intransitive verbs, but from all the examples provided in the grammars it cannot be seen whether it really reduces transitivity or not (Wistrand-Robinson & Armagost 1990:272, Charney 1993:128):

ma-kwinuma	[no gloss provided]	'make one dizzy/drunk'
ma-kwitso?ai	[no gloss provided]	'save someone'
ma-tsʉbaki	[no gloss provided]	'glue/stick something to'
ma-kuya?a	[MA-be.frightened]	'to scare someone'
ma-tsaH-so?i	[MA-INS(hand)-scratch]	'to scratch a pan/someone'

The original meaning of *ma-* was 'one' (as indefinite reference, not the numeral). In the Numic branch of Uto-Aztecan, **ma* was integrated into a demonstrative system with elaborate contrasts beyond proximal and distal

(Langacker 1977:99). From there, it acquired a general third person reference in both Timbisha and Comanche, apart from referring to unspecified objects. If it turns out that it indeed acquired an antipassive function in Comanche, this would constitute a case of a third person to antipassive development. Not only does that development go in the other direction as the well documented cases in Eurasia, it also seems parallel to the third person > impersonal > passive pathway mentioned in Section 1 and would thus add a further common origin of these voice markers. However, the intermediate stage of referring to a third person is not necessary[9] – it is also possible that the antipassive function developed directly from the indefinite/generic meaning, which is a well-attested pathway of change. Due to lack of diachronic data, it cannot be decided either way.

The suffix *-əm* in Halkomelem has such a wide array of functions that it evades traditional labels. Apart from its verbalizing function, it also attaches to transitive verbs in reflexive, antipassive and main clause passive constructions (Gerdts & Hukari 1998:167). Note that all of these are inflectionally intransitive. The reflexive and passive functions are productive, but the antipassive is not. The demoted patient can still be expressed as an oblique, cf. (15).

(15) Halkomelem (Salishan; Canada) (Gerdts & Hukari 1998:179)

niʔ q̓ʷəl-əm ʔə tᶿə sceʼɬtən.
AUX bake-DETR OBL DET salmon
'He cooked/barbecued the salmon.'

Gerdts & Hukari (2006:67) conclude that "there is no single property that definitively unites all the constructions discussed (…), although there is a

[9] Many thanks to the attentive anonymous reviewer who pointed this out to me.

general sense that each construction deviates from a fully transitive counterpart." The authors take the reflexive as the starting point and derive all other functions of the suffix from there. The development from reflexive to middle is well attested and can be understood in terms of shared properties, like lower degree of transitivity (Kemmer 1994).

The third person plural of the free pronouns is *ƛá-l-əm*, which is made up of three parts: *ƛá-*, the third singular pronoun, the plural marker *-l* and an element *-əm* that is formally identical to the detransitive suffix and according to Suttles (2004:331) quite possibly connected to it. Given that there are also verbal agreement markers, it might not be apparent why a verbal affix should appear on a personal pronoun. The grammar mentions that the pronouns can also be used as predicates in equative clauses such as 'it is me' etc. Furthermore, there is no stem that can be reconstructed for the third person plural pronoun in proto-Salish and the forms in the daughter languages suggest that they are all recent developments (Newman 1977:304-305). It it thus possible that the element *-əm* of the third person plural is historically connected to the detransitivizing suffix.

The other two overlaps in this macro-area, in Kiowa and Tz'utujil, most probably have no historical connection. In Kiowa, the third person forms and the antipassive are traced back to different proto-Kiowa-Tanoan forms (cf. Sutton 2014:764-784). Even though further research is needed in this domain, there is nothing that points to a historical connection. Tz'utujil presents an even clearer case. The antipassive suffix appears in a similar form in many Mayan languages and can be reconstructed to proto-Mayan as **-Vn* (Craig 1979), likewise the first person singular form in proto-Mayan was **in* and the Tz'utujil form is a direct continuation of this (Robertson 1992). This means a

diachronic connection between these two forms is highly unlikely. Overall historical connections between antipassive and person markers appear to be rare in North America.

4.4 South America

In South America, there are four overlaps of person markers with antipassives, three of which come from the Cariban family, cf. Table 9.

Language	Family	Family Gloss	Voice marker Form	Voice marker Gloss	Person marker Form	Person marker	Prob.
Matses	Panoan	Mayoruna	ANTIP	*-an*	1PL.P	*-an*	very likely
Panare	Cariban	Venezuelan	ANTIP	*n(ï)-*	1PL.NOM	*n-*	very unlikely
Panare	Cariban	Venezuelan	ANTIP	*n(ï)-*	3.NOM	*n-*	very unlikely
Trió	Cariban	Guianan	DETR, REFL, RECP	*ë-/ët-/ëi(s)-*	2.S, 3>2	*ë-*	very unlikely

Table 9: Antipassive-person overlaps in South America

This impression is biased, though, by the lack of available descriptions, unclear family memberships and few reconstructions for this macro-area. It is thus possible that such connections are not as rare as they appear and more cases could be identified in the future. As will be explained below, the case of Matses is striking, because it shows a very parallel situation to that in Puma and Chukchi (cf. Section 4.2). Panare has a first person plural and third person overlap, but like the second person one in Trió, a connection to the antipassive is unlikely. This leaves South America with only one confirmed connection.

Matsés has an antipassive marked by the suffix *-an*, which derives intransitive verbs from transitive ones. In the antipassive, the agent is in the absolutive and the demoted patient is obligatorily omitted. There are two possibilities regarding the interpretation of the demoted patient, either as an indefinite or as a first person, cf. (16b) and its corresponding active clause in

(16a).

(16) Matsés (Panoan; Peru) (Fleck 2006:559)

a. *aid opa-n matses pe-e-k.*
that.one dog-ERG people.ABS bite-NPST-IND
'That dog bites people.'

b. *aid opa pe-an-e-k.*
that.one dog.ABS bite-NPST-IND
'That dog bites.' *or* 'That dog always bites/is always biting me/us.'

The first person reading is more frequent and grammatically unrestricted, while the indefinite patient reading occurs only in generic statements, present habitual and to a lesser extent in the past habitual (Fleck 2006:559-560). Antipassives in *-an* are not very frequent in Matses, which is attributable to competition with other detransitivizing operations in the language and semantic restrictions on the antipassive. Only verbs with human patients can have a first person reading and only verbs denoting an action that significantly affects the patient can have an indefinite reading, which means that verbs that do not fall in either of these two categories cannot form an antipassive.

The suffix *-an* thus functions both an as antipassive and a first person plural patient marker. In the latter function, it is not yet fully integrated into the agreement system, which cross-references S and A arguments, although in the non-past tense there is no distinction between the persons, cf. Table 10, and even in the past there is only a SAP vs. third person distinction. The system is very reduced, so the addition of a new person marker can be seen as a way of counter-balancing this reduction.

Fleck (2006:565-568) shows that synchronically, the first person function

		first person clitics	
S/A.IND agreement		1S/1P (with 2A)	*=bi*
1/2/3NPST	*-k*	1A	*=mbi*
3PST	*-ṣh*	1P (with 3A)	*=i*

Table 10: Person marking in Matses (Fleck 2006:548)

is the basic one for speakers, but suggests that diachronically the antipassive was the source. This argument is based on the observation that with nominalized antipassives the first person reading is not possible. Given that non-finite clauses are often more conservative than finite ones, the generic patient interpretation can be seen as the original meaning and the first person patient reading as a reinterpretation of this. The reinterpretation of the *-an* antipassive into a first person plural patient was possibly based on the similar usage of first person plural as an unmarked antipassive in Peruvian Spanish, as illustrated in (17).

(17) Peruvian Spanish (Indo-European; Peru) (Fleck 2006:566)

El alacrán nos pica.
ART.DEF scorpion 1PL.OBJ sting.3SG
'Scorpions sting.'

This diachronic scenario is strikingly similar to that proposed for the Southern Kirant languages in Nepal (cf. Section 4.2). In both cases an antipassive develops a first person plural interpretation under the influence of a major contact language. Unlike in Kiranti, the source of the antipassive in Matses is unknown, as is the time scale of the development. Given that the antipassive suffix directly attaches to the verb stem and before other inflectional suffixes such as tense markers, it cannot be a recent change. Further research on Panoan languages will hopefully clarify this in the future.

In Panare, there is an antipassive construction marked by the prefix *n-*

/nï-.[10] It only appears with inferential past participle ending *-jpë* and is often, but not exclusively used in questions. It renders the clause intransitive and probably has a focus function (Payne & Payne 2013:325). The demoted patient can be expressed if it is indefinite or unspecified, but it can also be omitted, cf. (18).

(18) Panare (Cariban; Venezuela) (Payne & Payne 2013:329)

Puka n-ámë-jpë.
Puka ANTIP-plant-PTCP.PST.INFR
'Puka planted something.'

The authors note that the prefix *n-* cannot be the set I 3 & 1PL.INCL prefix, because with inferential past set II prefixes have to be used, cf. Table 11. This means that the antipassive construction does not have verb agreement.

SET I: PAST-PERFECTIVE				SET II: NON-PAST-PERFECTIVE	
	S	A (direct)	P (inverse)		S/P
1SG	*w-/ø-*	*t-/k-*	stress shift	1	*ø- ~ y-*
2	*m-*	*m-*	*a-*	2	*a- ~ ay-*
3 & 1PL.INCL	*n-*	*n-*	-	3	*yV- ~ y-/ty-*
1PL.EXCL	*ana n-*	*ana n-*	*ana-*	1PL.EXCL	*ana-*

Table 11: Verbal agreement in Panare (Payne & Payne 2013:196,234)

The prefix *n-* goes back to a proto-Carib object nominalizer **nɨ-*, which was added on top of action nominalizations to derive a noun referring to the patient of the action. The possessor of this nominalization is the notional A, while P is left unexpressed. In Panare, *n-* does not occur in this function anymore, but in other Cariban languages such as Makushi it still does. An example is provided in (19).

[10] The prefix is referred to as 'de-ergative' in the grammar, but the construction fits the definition used here and the authors point out that it corresponds to an antipassive in many ways.

(19) Makushi (Cariban; Brazil) (Gildea 2000:87)

u-n-era'ma-'pɨ pemokon
1-NMLZ-see-PST person
'the person I saw (lit.: the person, my seen one)'

The detransitivizing function of *n-* is also attested in Kuikúro, while it still functions only as a nominalizer in other Cariban languages. The person prefix *n-* of set I goes back to the proto-Cariban prefix **n(ɨ)-*, which was used to mark configurations of a third person acting on a third person (3A< 3P), i.e. for so-called non-local scenarios. The third person prefix *n-* in Panare is a direct continuation of this; the use as a first person inclusive marker is an extension that has also taken place in other parts of the person marking system (Gildea 1998:82). This means that all of the markers in question can be traced back to proto-Cariban. A historical connection between the antipassive and the person prefixes is unlikely, also because the forms involved mark S and A arguments – and antipassives are expected to have effects on P arguments. While there could still be a common source for the two morphemes, I cannot see any semantic or functional shared properties, so it is best to assume that they are separate from each other.

The situation in Trió (Cariban; Brazil) is very different, although it is also a Cariban language. This language has a middle marker *ë-/ët-/ëi(s)-* that is used in reflexive, reciprocal, passive and antipassive constructions (Meira 1999). One of its allomorphs formally overlaps with the second person acting on third person prefix *ë-*. The latter is most probably a direct continuation of the proto-Carib second on third prefix **ay-* (Gildea 1994). The reconstruction of the middle prefix is not entirely clear, but the allomorphy suggest that it goes back to a form including a *-t* (Meira 2000). It has cognates in other Cariban languages, in which its functional range is also broad. Gildea (2015)

proposes that the original function of this prefix was reflexive/reciprocal and the middle function developed from there. Given that this is a common pathway, and that both prefixes are reconstructable to different forms, it is best to assume that the morphological overlap is coincidental in this case. As in other regions, many of the diachronic pathways are unclear as of now due to lack of language descriptions and reconstruction.

4.5 Pacific

Compared to the other macro-areas there are more overlaps in the Pacific region. Oceania in particular is known to have smaller phoneme inventory sizes than other regions of the world (c.f. for example Atkinson 2011) and simple syllable structure, which together raise the baseline probability for a morphological overlap. The most certain historical connection is in Muna, a language of Indonesia, which exhibits a development parallel to that in Matses and Kiranti. The majority of the other overlaps turn out to be coincidental based on what is known about them so far, cf. Table 12.

Language	Family	Voice marker		Person marker		Prob.
		Gloss	Form	Gloss	Form	
Muna	AN, M-P, Celebic	ANTIP	*fo-*	1PL.INCL	*fo-*	very likely
To'abaita	AN, M-P, Oceanic	ANTIP, RECP	*kwai-*	1SG.NOM	*kwai*	very unlikely
(Chamorro	AN, M-P	ANTIP (A-or.)	*man-*	PL	*man-*	likely)
Saliba	AN, M-P, Oceanic	ANTIP	*kai-*	1PL.EXCL	*kai*	possible
Lavukaleve	Isolate	DETR	*-a*	1SG.NOM	*a-*	unlikely
Lavukaleve	Isolate	DETR	*-a*	3SG.ACC.M	*a-*	unlikely
(Lavukaleve	Isolate	DETR	*-a*	SG.F	*-a*	unlikely)
Savosavo	Isolate	DETR	*-za*	3PL.ACC	*za*	very unlikely

Table 12: Antipassive-person overlaps in the Pacific

It is noteworthy, though, that the other possible connection – that in Saliba – also involves a first person plural form, while those that are uncon-

nected show a variety of different persons and numbers. This adds to the impression that the antipassive has a close relationship to first person plural forms.

Muna has an antipassive marked by the prefix *fo-* which is formally identical to the causative *fo-*, but the former takes different person prefixes and remains unchanged in the irrealis suggesting that they are separate markers (van den Berg 1989).[11] The antipassive is mainly used for generic statements and the demoted patient cannot be expressed overtly, but is understood to refer to humans (cf. 20a).

(20) Muna (Austronesian, MP, Celebic; Indonesia) (van den Berg 1989:204)

a. *do-tanda-mo deki do-fo-kadiu.*
3PL.NOM.REAL-begin-PFV first 3PL.NOM.REAL-ANTIP-bath
'They started by giving a bath.'

b. *ingka na-fo-sampu-niki tora o gurudha.*
you.know 3SG.IRR-ANTIP-come.down-TR again ART garuda
'Don't you know the garuda will come down upon us again.'

This is reminiscent of the situation in Matses and the Southern Kirant, and indeed, van den Berg (1989:204) states that the demoted patient of antipassives often refers to first person inclusive (see 20b) – and this is exactly where there is a gap in the verbal agreement paradigm, cf. Table 13.

No source is mentioned for the antipassive prefix *fo-*, but according to the sound laws that occurred between proto-Malayo-Polynesian and Muna, it can go back to either **pe-* or **paw-* (van den Berg 1991). These are also the the possible proto-forms of the reciprocal prefix *po-*, which has a detransi-

[11] The overlap is still interesting as it is usually the passive that is formally identical to the causative (Haspelmath 1990). Also, there is another case of an antipassive overlapping with a causative, namely in Soninke (see Section 4.1). In this language, the common source is probably a verb 'do, make' (Creissels 2012). The two unconnected cases suggest that this topic is worthy of further investigation.

	NOM æ-class	ACC
1SG	*æ-*	*-kanau*
1DU.INCL	*de-*	
1PL.INCL	*de-Σ-Vmu*	
1PL.EXCL	*tæ-*	*-kasami*
2SG	*ome-*	*-ko*
2PL	*ome-Σ-Vmu*	*-ko-omu*
3SG	*ne-*	*-e*
3PL	*de-*	*-da*

Table 13: Verbal agreement (realis) in Muna (van den Berg 1989:53, 68)

tivizing effect as well. Van den Berg (1991) notes that **p* usually develops into *f* in unstressed position and remains *p* in stressed position, but there are irregularities that cannot be explained by this rule. As mentioned in Section 2, many antipassives develop from a reflexive or reciprocal or have a common source with these markers. The most likely scenario for Muna is thus that the antipassive either developed from the reciprocal, or that both have a common source. In the future, the prefix *fo-* might be extended to mark first person inclusive patients in non-antipassive contexts as well, given the absence of a dedicated verbal agreement marker. Again, this case closely resembles those in Southern Kirant, Chukchi and Matses.

Saliba, an Oceanic language spoken in Papua New Guinea, has a detransitivizing prefix *kai-* that attaches to transitives verbs and renders them intransitive. The object is either suppressed or occurs as an oblique (Margetts 1999:181), cf. (21).

(21) Saliba (Austronesian, Oceanic; Papua New Guinea) (Margetts 1999:182)

Ya-lao *ya-kai-deuli.*
1SG.NOM-go 1SG.NOM-ANTIP-wash
'I go and wash the laundry/the dishes.'

The prefix is not used frequently and, as is typical for antipassives, it usu-

ally describes habitual activities, in this particular case often linked to fishing techniques (Margetts 1999:183). Note that Margetts (1999) does not refer to this prefix as an antipassive – in fact, she does not assign a gloss to it at all. The author does point out, though, that it is very similar to an antipassive, but that she will not use this label primarily because "(...) a voice alternation ideally applies to a larger part of the lexicon, where as the *kai*-prefix is restricted to a relatively small number of verb roots" (Margetts 1999:191). In addition, the prefix also has another detransitivizing function, namely deriving intransitive verbs with a meaning 'VERB around'/'play at VERBING', and thus the antipassive label would obscure its multi-functionality. Since my definition of an antipassive is deliberately broad and does not include reference to either productivity or restrictions to only one function, I chose to gloss *kai-* as antipassive to keep consistency within this study. This should not be taken to indicate that I disagree with Margetts's (1999) reasoning – it is merely a practical decision.

The prefix overlaps with the first person plural exclusive pronoun *kai*. Free pronouns are used with non-verbal predicates but can also co-occur with agreement markers with verbal predicates. It most probably comes from the proto-Oceanic first person non-singular exclusive pronoun **ka(m)i* (Anna Margetts, p.c.). As of now, there is no literature about the history of Saliba or the Papuan Tip languages as a subgroup. Contrary to the To'abaita antipassive *kwai-* (see below), which looks very similar, the Saliba form cannot be a reflex of proto-Oceanic **paRi-* which had a collective and/or reciprocal meaning. This would have rendered something like *†ha(l)i* or *†pa(l)i* in Saliba. Another option is that *kai-* arose via a metathesis from proto-Oceanic **-akini*, which derives intransitive resultatives from transitives (Evans 2003),

but the probability for this is very low (Jonathan Schlossberg, p.c.). Thus, there is a possibility that the antipassive *kai-* developed out of the first plural exclusive form *kai-*, which is well reconstructable. There is no evidence to support this, but also nothing that speaks against it. However, there is a homophonous classificatory prefix *kai-* that attaches to verb stems and adds the information that body or body weight of the agent is involved in the activity denoted by the verb. It is considered a separate prefix, because it does not affect the transitivity of the verb stem (Margetts 1999:193-194). It is possible that these prefixes are historically related to each other, although it is unclear what kind of pathway this would involve, as there is no functional overlap between them.

To'abaita, is also spoken in the Solomon Islands, but is part of the Oceanic (Austronesian) family. In To'abaita, the antipassive and reciprocal prefix *kwai-*[12] is formally identical to the first person singular nominative pronoun *kwai*, cf. (22a), the reciprocal in (22b), and the antipassive in (22c).

(22) To'abaita (Austronesian, M-P, Oceanic; Solomon Islands) (Lichtenberk 2008:173, 861, 865)

a. *Kwai qolo-si-a fasi suli-ku.*
1SG.FUT straighten-TR-3.OBJ PREC back-1SG.POSS
'I'll stretch my back first.'

b. *Roo wela kera kwai-nalu-fi.*
two child 3PL.NOM.NFUT RECP-splash-TR
'The two children splashing each other (with water).'

c. *Nau ku kwai-su?u-si fasi-a alata.*
1SG 1SG.NOM.NFUT ANTIP-prevent-TR ABL-3SG.ACC fishing.area
'I banned people from (entering, fishing in) my fishing area.'

However, the two forms can be traced back to different proto-Oceanic

[12] The prefix is referred to as 'depatientive' in the grammar.

sources. The antipassive prefix continues the proto-Oceanic prefix **paRi-*, which probably had a collective and/or reciprocal meaning (Blust 2013:380). The antipassive function is a later development of To'abaita (Moyse-Faurie 2008:161, see also Lichtenberk 1991, 2000, and 2007 on this topic); this is another case of the common development from reciprocal to antipassive. The first person pronoun probably goes back to the proto-Oceanic first singular **ku* plus an element *(k)i* that appears as a first person marker in other person marker sets in the language. A historical connection thus seems unlikely.

Even though the overlap in Chamorro does not strictly speaking concern a person marker, it is still worth mentioning here because of interesting parallels to other cases. In this language, the antipassive prefix is formally identical to the plural verb agreement marker; both are *man-*. This plural agreement marker is used with S arguments, which – unlike A arguments – do not index person, cf. Table 14.

S		A		P
SG	*-um*	3SG	*ha-*	no
PL	*man-*	3PL	*ma-*	agreement

Table 14: Chamorro S, A and P agreement (realis) of third person (Cooreman 1987:36)

Reid (2002) proposes a common source for both: the nominal plural marker **ma* combined with the linker **na*, which later lost its final vowel. Synchronically, these prefixes occupy different slots on the verb stem as in (23).

(23) Chamorro (Austronesian; Guam) (Donohue & Machlachlan 1999:122)

Man-man-li'e' i famalao'an nu i lahi.
PL.S-ANTIP-see ART woman.PL OBL ART man
'The women saw the man.'

While the transfer of the plural marker from nouns to verbal agreement

can be seen as a case of extension, the pathway to an antipassive marker is less obvious. It might be a later development of the plural agreement marker, arising via the notion of genericity as in the Southern Kirant languages, in which the antipassive is based on generic notions such as 'people' and 'all'. What is noteworthy here is that the plural and antipassive prefix are now so clearly distinct that they can appear alongside each other. In other languages we have seen the co-existence of both functions, but never separated into distinct morphemes.

Lavukaleve, an isolate spoken on the Solomon Islands, shows multiple overlaps of the detransitivizer with person markers, but this should be taken with caution: The morpheme in question consists only of a vowel, namely *a-*, and, because the languages is an isolate there is no reconstruction at hand. The detransitivizer *-a*[13] occurs on a handful of verbs and it is unclear how productive it is. It is used as a passive and antipassive (cf. 24), but never has both functions with one verb (Terrill 2003:362).

(24) Lavukaleve (Isolate; Solomon Islands) (Terrill 2003:368)

ngai koroi-a uia o-na.
1SG cut-DETR knife(F) 3SG.F.P-in
'I cut [myself] on a knife.'

The suffix also marks iterativity on intransitive verbs and expresses reflexivity. It overlaps with two verbal agreement markers, namely the first person singular S and A prefix and the third person masculine P prefix, which are both *a-*, cf. (25a) and (25b).

(25) Lavukaleve (Isolate; Solomon Islands) (Terrill 2003:37, 245, 257)

[13] Labeled as 'intransitivizer' in the grammar.

a. *Leta vela-nun vela-nun ta mina o-a-vea.*
but go-DUR go-DUR but thing(F) 3SG.F.P-1SG.A-know
'But things went on, and now I know something.'

b. *a-lai-la-v fiv*
3SG.M.P-tell-NEG-PL 3PL.FOC
'They didn't tell him.'

c. *... vo-nam kini lavea-la-a feo*
... 3PL.P-to ACT appear-NEG-SG.F 3SG.F.FOC
'... she didn't show herself to them'

In addition, the singular feminine gender agreement suffix is also *-a*, and, as shown in (25c), it also occurs on verbs. As mentioned above, nothing is known about the prehistory of these forms – an assessment of how probable a historical connection is must thus be based on what we know from other languages. Given that the position of the affixes in question differ and that there is no obvious semantic link or any other indication of a diachronic relationship, a historical connection is unlikely.

Another isolate of the Solomon Islands, Savosavo, also exhibits an overlap of a detransitivizing affix with person markers. The suffix *-za* derives intransitive from transitive verbs, and functions as passive or antipassive – the choice is lexically determined (Wegener 2012). It overlaps with one of the variants of the accusative third person plural clitics, cf. Table 15.

	NOM	ACC
3SG.M	*lo=na ~ la=na*	*lo ~ la*
3SG.F	*ko=na ~ ka=na*	*ko ~ ka*
3DU	*to=na ~ ta=na*	*to ~ ta*
3PL	*ze=na ~ zepo=na ~ za=na*	*ze ~ zepo ~ za*

Table 15: Third person clitics in Savosavo (Wegener 2012:78, 80)

Like Lavukaleve, Savosavo is an isolate, so there is no literature on its reconstruction so far. As the alternation in the third person is regular, i.e. all

the forms have a proximal alternative with the vowel *a*, I believe it is rather improbable that the detransitivizer *-za* is the source of the person marker *za* or vice versa.

The Pacific macro-area has added one more case to the antipassive to first person patient pathway, with another one being at least a possibility. Otherwise, historical connections between antipassives and person markers are not prevalent.

4.6 Australia

Voice marking in Australian languages is rare, especially in the non-Pama-Nyungan ones – and even in Pama-Nyungan languages antipassives are only found infrequently (Terrill 1997). While voice oppositions as such are not reconstructable, there is a suffix that develops into a voice marker in many languages. The reflexes of the suffix **-dharri* are used to express reflexives or reciprocals, sometimes along with passive and/or antipassive functions in many modern languages. In most cases, it detransitivizes the verb it attaches to (Dixon 2002:530-536). Terrill (1997) suggests that the antipassive function developed out of the reflexive, which is a common pathway (see Section 2), but Dixon (2002:535) takes the position that **-dharri* originally only had a semantic effect, and that both the reflexive and antipassive function developed out of this. Note that the reflexive and antipassive functions still coexist in many Australian languages, with one suffix used for both. All the antipassives that exhibit an overlap with a person marker, cf. Table 16, go back to **-dharri*.

The first person plural form in Yidiny cannot go back to the proto-Pama-Nyungan form, rather it might be a combination of the proto-Pama-Nyungan

Language	Family	Voice marker		Person marker		Prob.
		Gloss	Form	Gloss	Form	
Yidiny	P-N, Y-Y-Y	ANTIP, REFL	*-:dji*	1PL	*ŋaɲdji*	unlikely
Warungu	P-N, Greater Maric	DETR, REFL	*-(ga)li*	1DU	*ngali*	very unlikely
Bandjalang	P-N, South-West P-N	ANTIP, REFL, RECP	*-li*	1PL.EXCL	*ngali*	very unlikely

Table 16: Antipassive-person overlaps in Australia

first singular root **ngay* and the comitative suffix *-dji* (Dixon 1977:179-180). There is no evidence for this scenario, but it seems plausible. It still leaves the possibility open that the second part is not the comitative but the reflexive/antipassive suffix. One would then have to explain how a verbal suffix ended up on a pronoun, but given that there is no copula and pronouns can be used as predicates there are possibilities of finding bridge constructions. Since there is another proposal, which seems just as plausible, I deem a historical connection unlikely. In Warungu and Bandjalang, the dual form *ngali* directly continues the proto-Pama-Nyungan first person dual pronoun **ngali* and thus make a historical connection to the antipassive unlikely.

Australia emerges as the only macro-area without any probable historical connection between antipassives and person markers. This can be attributed to the common origin of antipassives in Pama-Nyungan. In many other languages discussed so far, the antipassive markers and/or overlaps did not recur in related languages, suggesting either relatively recent or independent developments. Australian languages seem to be far more conservative in this respect.

5 Pathways

The previous sections have shown that historical connections between antipassives and person markers occur in various languages across the world,

suggesting recurrent patterns. Looking at the connections that are possible, probable, or likely in Table 17, two aspects of the person markers involved become evident: they are exclusively first and third person, mostly plural, and either a patient form or not case marked at all.

Language	Family	Macro-area	Voice marker		Person marker		Prob.	Dir.
			Gloss	Form	Gloss	Form		
Chukchi	Chukotko-Kamchatkan	Eurasia	ANTIP	*ine-*	2/3SG> 1SG	*ine-*	very likely	VM > PM
Puma	Sino-Tibetan	Eurasia	ANTIP	*kha-*	1PL.P	*kha-*	very likely	VM > PM
(Yakkha	Sino-Tibetan	Eurasia	DETR	*ø-*	1PL.P	*ø-*	very likely	VM > PM)
Muna	Austronesian	Pacific	ANTIP	*fo-*	1PL.INCL	*fo-*	very likely	VM > PM
Comanche	Uto-Aztecan	North Am.	ANTIP.HUM	*ma-*	3SG.ACC	*ma-*	very likely	PM > VM
Chukchi	Chukotko-Kamchatkan	Eurasia	ANTIP	*-tku*	2> 1PL	*-tku*	very likely	VM > PM
Matses	Panoan	South Am.	ANTIP	*-an*	1PL.P	*-an*	very likely	VM > PM
(Chamorro	Austronesian	Pacific	ANTIP	*man-*	PL	*man-*	likely	com. source)
Krongo	Kadugli-Krongo	Africa	ANTIP	*-tì*	3.INAN.OBL	*tí*	likely	PM > VM
Mandinka	Mande	Africa	ANTIP, REFL	*í*	3PL	*i=*	possible	VM > PM
Soninke	Mande	Africa	DETR	*-i*	3PL	*ì=*	possible	VM > PM
Halkomelem	Salishan	North Am.	DETR, REFL	*-m*	3PL	*ƛ́á-l-əm*	possible	VM > PM
Saliba	Austronesian	Pacific	ANTIP	*kai-*	1PL.EXCL	*kai*	possible	PM > VM

Table 17: Connections of antipassives and person markers with chance level or above probabilities

The latter is expected, given that antipassives turn the agent into a sole argument, which means that it is always overt in such clauses and thus can hardly be replaced by a voice marker or turn into a voice marker.

Based on the developments for which there is more detailed information, i.e. Matses and the Kiranti languages, it seems that the antipassives which serve as the basis of person markers are often linked to generic expressions. The prevalence of plural forms can thus be seen as an artifact of the earlier generic meaning. In the majority of cases, the antipassive develops into a person marker – or is in the process of doing so – and not vice versa. This should, however, be taken with a grain of salt because unless the pathway and exact constructions involved are known there is always some uncertainty involved. In addition, a common source for both markers remains a possibility in many cases in which we lack more detailed knowledge about the language's history.

Given that such connections occur in all macro-areas except Australia and often do not recur within language families, neither large-scale macro-areal nor genealogical factors are the main triggers for this development. Rather it seems to be a localized phenomenon that requires very specific linguistic and social circumstances – and is thus not easily transferrable vertically or horizontally. This also explains why such connections are not frequent but cannot be considered *rara* either – although more cases might emerge with further research as our knowledge of language histories expands. There might also be more cases of similar pathways, but the person and voice marker do not share the same form anymore because of later changes. Indeed, the scenarios documented here exhibit a relatively shallow time-depth for the development.

If neither genealogy nor geography are the principal influences, this raises the question of what factors facilitate developments from antipassive to person marker. This is not to imply that they are necessarily the same in all cases, but some common features can be identified. The most striking finding of this study is that antipassives have a close relationship to first person plural patient forms and often take on the latter meaning over time. In at least two cases this is facilitated by contact with a prestige language (i.e. Maithili in Nepal and Spanish in Peru). In other cases, like that of Muna, gaps in the person marking system can be seen as promoting a first person interpretation – or in the case of Chukchi, a complex person marking system that has undergone shifts and changes. While neither of these factors alone is necessary – otherwise a lot more languages would exhibit a historical relation between antipassives and person markers – they each contribute to such developments. Sansò (2017b) states that constructions and markers that come from different sources can end up looking quite similar to each other – and refers to the sources of antipassives as an example of this. The development of antipassives into first person patient markers is a further example, as the voice markers involved have different sources, but the outcomes are comparable. When studying the diachrony of an element, this is often restricted to where this element comes from and does not consider its subsequent development. As shown above, this can be just as informative.

It should be added here that argument-defocusing constructions such as impersonals and detransitivization are often used as replacements of person forms for pragmatic reasons; in most cases this concerns first persons. A well-known example is informal spoken French, where the impersonal pronoun *on* is widely used as a first person plural pronoun instead of *nous* (cf.

Coveney 2000 for a detailed account). Furthermore, passives are not only associated with impersonals (as mentioned in Section 1), but also with honorifics. This is best explained by the agent-defocusing function of passives – it provides the link between the two categories, since honorifics are often used to avoid direct reference to an agent (Shibatani 1985:837-838). Similar processes seem to be at work in the cases in which an antipassive is taking on a first person patient interpretation.

A possible other pathway concerns third person forms as sources of antipassives, as in Comanche and Krongo, although both cases lack the materials to say anything with certainty. The first step is that the person marker takes on an indefinite object function (if it has not been already used as such); then it can be reinterpreted as a antipassive marker. This development is reminiscent of the impersonal to passive pathway that usually starts out with a third person plural agent form. In addition to the common origins of passives and antipassives such as nominalizations and reflexives, this shows that they also have common pathways of change. In some languages, the same construction is used for all detransitivizing operations and such general constructions and markers can be taken as a starting point for parallel developments.

Another interesting observation is that second person forms are conspicuously absent from Table 17. At this point, it is difficult to tell whether this is an artifact of the sample or an actual property of person markers connected to antipassives. Based on the proposed semantic links, namely genericity and politeness, second person forms could take part in such developments: generic forms based on second person plurals are widely attested (cf. for example the usage of 'you' in English generic statements such as *you never*

know what you get) and politeness strategies involving second persons are common as well. The absence of second person forms could be a consequence of discourse patterns, though. The links proposed here always affect patient arguments, and not all persons occur equally often in this slot. This has been demonstrated for arguments in active and passive clauses in English, where Bresnan et al. (2001) found that SAP are more likely as S arguments in passive clauses than third persons. There is no comparable study on antipassives, but there might be a tendency for S arguments in antipassive clauses to be first or third person. This corresponds to the actor argument in active clauses, which is often first person, given our predilection for talking about ourselves. When we do talk about other people's actions, we use predominantly third person forms. In such a context, second person can be seen as dispreferred, because it is uncommon or maybe even impolite to make statements about a person that is present. Further research will show whether this actually holds across languages, and if it does, whether this is an adequate explanation for the absence of second person forms.

6 Conclusion

The previous sections have shown that some pathways of language change relate antipassive markers to first and third person patient markers. Even though many details remain unknown, the appearance of such developments across macro-areas and language families indicates that a mixture of language internal and external factors, such as societal organization and contact, contributes to the emergence of this pattern. To shed more light on such relationships, a cross-linguistic survey of the diachrony of antipassives and voice markers in general would be desirable, especially combined with

detailed language- and family-internal studies. Understanding processes of language change in single languages and language families is indispensable for finding and explaining patterns like the present one, which are not very frequent and thus easy to overlook.

Much work remains to be undertaken on the diachrony of antipassives and their cross-linguistic distribution. This will not only improve our understanding of this phenomenon in particular, but also of the factors impacting language change more generally.

Glosses

1	first person	IMP	imperative
2	second person	INAN	inanimate
3	third person	INCL	inclusive
A	agent	IND	indicative
ABL	ablative	INDF	indefinite
ABS	absolutive	INFR	inferential evidentiality
ACC	accusative	INS	instrumental
ACT	action particle	IRR	irrealis
ANTIP	antipassive	M	masculine
AOR	aorist	NEG	negative
ART	article	NFUT	non-future
AUX	auxiliary	NHUM	non-human
DAT	dative	NMLZ	nominalizer
DEDUC	deductive suffix	NOM	nominative
DEF	definite	NPST	non-past
DET	determiner	NSG	non-singular
DETR	detransitive	OBJ	object
DU	dual	OBL	oblique
DUR	durative	P	patient
ERG	ergative	PFV	perfective
EVD	evidential	PL	plural
EXCL	exclusive	PM	person marker
F	feminine	POSS	possessive
FOC	focus	PREC	precedentive
FUT	future	PST	past
HUM	human		

PTCP	participle	SG	singular
REAL	realis	SS	same subject
RECP	reciprocal	TOP	topic
REFL	reflexive	TR	transitive
S	argument of intransitive verb	VBLZ	verbalizer
		VM	voice marker

Abbreviations

AN Austronesian

M-P Malayo-Polynesian

P-N Pama-Nyungan

Y-Y-Y Yimidhirr-Yalani-Yidinic

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Appendix

Language	Glottocode	Macro-area	Family	Branch
Mandinka	mand1436	Africa	Mande	Western Mande
Soninke	soni1259	Africa	Mande	Western Mande
Koyraboro Senni	koyr1242	Africa	Songhay	Eastern Songhay
Krongo	kron2141	Africa	Kadugli-Krongo	Central-Western Kadugli-Kro
Gaam	gaam1241	Africa	Eastern Jebel	
Luba-Lulua	luba1249	Africa	Atlantic-Congo	Narrow Bantu
Bantoid	bant1234	Africa	Atlantic-Congo	
Maasai	masa1300	Africa	Nilotic	Eastern Nilotic
Nandi	nand1266	Africa	Nilotic	Southern Nilotic
Tugen	tuge1241	Africa	Nilotic	Southern Nilotic
Chukchi	chuk1273	Eurasia	Chukotko-Kamchatkan	Chukotian
Itelmen	itel1242	Eurasia	Chukotko-Kamchatkan	
Puma	puma1239	Eurasia	Sino-Tibetan	Kiranti

Yakkha	yakk1236	Eurasia	Sino-Tibetan	Kiranti
Godoberi	ghod1238	Eurasia	Nakh-Dagestanian	Daghestanian
Hinuq	hinu1240	Eurasia	Nakh-Dagestanian	Daghestanian
Hunzib	hunz1247	Eurasia	Nakh-Dagestanian	Daghestanian
Chamorro	cham1312	Pacific	Austronesian	Malayo-Polynesian
Muna	muna1247	Pacific	Austronesian	Malayo-Polynesian, Celebic
Bungku-Tolaki	bung1268	Pacific	Austronesian	Malayo-Polynesian, Celebic
Saliba	sali1295	Pacific	Austronesian	Malayo-Polynesian, Oceanic
To'abaita	toab1237	Pacific	Austronesian	Malayo-Polynesian, Oceanic
Savosavo	savo1255	Pacific	Isolate	
Lavukaleve	lavu1241	Pacific	Isolate	
Warungu	waru1264	Australia	Pama-Nyungan	Greater Maric
Dieri	dier1241	Australia	Pama-Nyungan	Karnic
Bandjalang	band1339	Australia	Pama-Nyungan	South-West Pama-Nyungan
Djabugay	dyaa1242	Australia	Pama-Nyungan	Yimidhirr-Yalani-Yidinic
Yidiny	yidi1250	Australia	Pama-Nyungan	Yimidhirr-Yalani-Yidinic
Kiowa	kiow1266	North America	Kiowa-Tanoan	Kiowa
Kaqchikel	kaqc1270	North America	Mayan	Quichean-Mamean
Mam	mamm1241	North America	Mayan	Quichean-Mamean
Tz'utujil	tzut1248	North America	Mayan	Quichean-Mamean
Halkomelem	halk1245	North America	Salishan	Central Salish
Shuswap	shus1248	North America	Salishan	Interior Salish
Comanche	coma1245	North America	Uto-Aztecan	Numic
Timbisha	pana1305	North America	Uto-Aztecan	Numic
Ixcatec	ixca1245	North America	Otomanguean	Popolocan-Zapotecan
Matses	mats1244	South America	Panoan	Mayoruna
Cavineña	cavi1250	South America	Tacanan	
Nanti	nant1250	South America	Arawakan	Southern Maipuran

Apinayé	apin1244	South America	Nuclear-Macro-Je	Je
Panare	enap1235	South America	Cariban	Venezuelan
Trió	trio1238	South America	Cariban	Guianan
Galibi Carib	gali1262	South America	Cariban	Guianan

Table 18: Language Sample[14]

[14] Genealogical classification according to Hammarström et al. 2017. Geographic grouping according to Hammarström & Donohue 2014.